

REMARKS

Claims 14, 15, 17-20, and 22, and 24-36 are all the claims pending in the application. Claims 15, 19, 20, and 22 have been withdrawn from consideration. Claims 26, 31, 35 stand objected to upon informalities. Claims 27 and 29 stand rejected under 35 USC §112, second paragraph. Claims 14, 17, 18, and 24-36 stand rejected on prior art grounds. In addition, the drawings and specification are objected to. Applicant respectfully traverses these objections/rejections based on the following discussion.

I. Drawing Objection

With respect to reference characters 43 and 45 in Figures 5 and 6, the drawings and specifications have been modified to identify the P-channel transistor's gate as reference character 145 and the P-channel transistor as reference character 143. In addition, the changes suggested in the second paragraph of item 2 on page 2 of the Office Action have been made to Figures 4-6. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the objections to the drawings.

II. Specification Objection

With respect to the objections to specification, the specification has been amended as

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suggested in the Office Action. In the other foregoing, the Examiner is respectfully requested to reconsider and withdraw the objection to the specification.

III. Claim Objections

With respect to the objections to the claims, the claims have been amended as suggested in the Office Action except for claim 31. With respect to claim 31, which more specifically defines silicon over insulator (SOI) technologies, the body is floating with respect to the underlying substrate. To more clearly define structure, claim 31 has been amended to recite "a silicon-over-insulator body that is floating with respect to an underlying substrate." In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the claim objections.

IV. The 35 U.S.C. §112, Second Paragraph, Rejection

Claims 27 and 29 stand rejected under 35 U.S.C. §112, second paragraph. In response thereto, the word "said" has been placed in front of the second occurrence of "overvoltage or overcurrent condition exists" in claim 27. With respect to claim 29, the term "provide" has been modified to "coupled to" to match the description on page 15, line 15 of the specification. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw these rejections.

V. The Prior Art Rejections

Claims 14 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Au et al., hereinafter "Au" (U.S. Patent No. 5,528,188), in view of Brady, et al., hereinafter "Brady" (U.S. Patent No. 5,314,841). Claims 18 and 31-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Au in view of Brady and Sasaki (5,039,873). Claim 25 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ker et al., hereinafter "Ker" (5,631,793) in view of Au, Brady, and further in view of Sasaki. Applicant respectfully traverses this rejection based on the following discussion.

A. The Rejection Based on Au and Brady

It is Applicant's position that a prima facie case of obviousness has not been set forth because, in this instance, Brady is not properly combinable with Au. The Office Action proposes to combine Brady with Au to show that the technology within Au could be extended to SOI technology. However, this combination is not reasonable given that the invention is directed toward controlling the body potential of an SOI transistor and that the teachings of non-SOI technologies are not generally transferable to the floating bodies of SOI structures. Further, as described in detail below, if the device in Au were transferred to the SOI technology field, this would destroy the operability of the device in Au because Au relies on the body being non-

floating. When the proposed combination of references destroys the operability of one of the references, this indicates that the proposed combination would not have been made by one ordinarily skilled in the art.

Non-SOI structures do not insulate the body from the underlying substrate, while in SOI structures the body is insulated (floating). The technologies with respect to the body potential are fundamentally different, and teachings relating to bodies of non-SOI structures generally cannot be transferred to the floating bodies of SOI structures because of the fundamental difference regarding the body potential. While SOI technologies present substantial advantages over non-SOI technologies (because of the floating body) SOI technologies also present a number of impediments which were not present in non-SOI technologies (also because the body is floating). Generally non-SOI technologies cannot be transferred to SOI technologies, unless compensation is made for the floating body. Therefore, simply referring to Brady as disclosing an SOI structure, and then concluding that all the non-SOI teachings in Au can readily apply to an SOI structure is not reasonable given that the structure in Au must be modified significantly in order to be functional within the SOI technology environment. Indeed, simply transferring the structure shown in Au to an SOI environment would render the operation of the device in Au non-functional because Au relies upon the body being non-floating in order to have the device properly operate. Thus, because the proposed combination destroys the operability of the Au reference, Applicant's submit that a prima facie case of obviousness has not been set forth. This is especially true considering that the claimed invention is directed toward solving problems associated with the potential of the floating body which is a problem unique to SOI structures.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 14 and 17.

B. The Rejection Based on Au in view of Brady and Sasaki

As shown above, Au is not properly combinable with Brady. The Office Action makes reference to Sasaki for the limited purpose of disclosing a resistive transistor and there is nothing within Sasaki that would have suggested to one ordinarily skilled in the art that they should combine Brady and Au. Therefore, this rejection is similarly defective as the previous rejection in that a prima facie case of obviousness has not been set forth. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 18 and 31-36.

C. The Rejection Based on Ker in view of Au and Brady

It is Applicant's position that a prima facie case of obviousness has not been set forth because, in this instance, Brady is not properly combinable with Au or Ker. The Office Action proposes to combine Brady with Au and Ker to show that the technology within Au and Ker could be extended to SOI technology. However, this combination is not reasonable given that the invention is directed toward controlling the body potential of an SOI transistor and that the teachings of non-SOI technologies are not generally transferable to the floating bodies of SOI

structures. Further, as described in detail below, if the devices in Au and Ker were transferred to the SOI technology field, this would destroy the operability of the devices in Au and Ker because Au and Ker rely on the body being non-floating. When the proposed combination of references destroys the operability of one of the references, this indicates that the proposed combination would not have been made by one ordinarily skilled in the art.

As pointed out above, non-SOI structures do not insulate the body from the underlying substrate, while in SOI structures the body is insulated (floating). The technologies with respect to the body potential are fundamentally different, and teachings relating to bodies of non-SOI structures generally cannot be transferred to the floating bodies of SOI structures because of the fundamental difference regarding the body potential. While SOI technologies present substantial advantages over non-SOI technologies (because of the floating body) SOI technologies also present a number of impediments which were not present in non-SOI technologies (also because the body is floating). Generally non-SOI technologies cannot be transferred to SOI technologies, unless compensation is made for the floating body. Therefore, simply referring to Brady as disclosing an SOI structure, and then concluding that all the non-SOI teachings in Au and Ker can readily apply to an SOI structure is not reasonable given that the structures in Au and Ker must be modified significantly in order to be functional within the SOI technology environment. Indeed, simply transferring the structures shown in Au and Ker to an SOI environment would render the operation of the devices in Au and Ker non-functional because Au and Ker rely upon the body being non-floating in order to have the devices properly operate. Thus, because the proposed combination destroys the operability of the Au and Ker references, Applicant's submit

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that a prima facie case of obviousness has not been set forth. This is especially true considering that the claimed invention is directed toward solving problems associated with the potential of the floating body which is a problem unique to SOI structures.

As shown above, Au and Ker are not properly combinable with Brady. There is nothing within Ker or Au that would have suggested to one ordinarily skilled in the art that they should combine Brady with Au and/or Ker. Therefore, this rejection is similarly defective as the previous rejection in that a prima facie case of obviousness has not been set forth. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 24 and 26-30.

D. The Rejection Based on Ker in view of Au, Brady, and Sasaki

As shown above, Au and Ker are not properly combinable with Brady. The Office Action makes reference to Sasaki for the limited purpose of disclosing a resistive transistor and there is nothing within Sasaki that would have suggested to one ordinarily skilled in the art that they should combine Brady and Au and Ker. Therefore, this rejection is similarly defective as the previous rejection in that a prima facie case of obviousness has not been set forth. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 25.

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III. Formal Matters and Conclusion

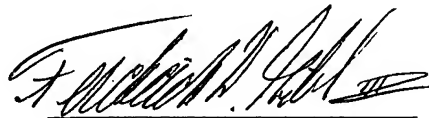
In view of the foregoing, Applicant submits that claims 14, 15, 17-20, and 22, and 24-36, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0456.

Respectfully submitted,

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Frederick W. Gibb, III, Esq.
Registration No. 37,629

McGinn & Gibb, PLLC
2568-A Riva Road, Suite 304
Annapolis, MD 21401
(410) 573-1545
Customer Number: 29154